

Northeast Forum on Climate-Waste Connections

What is the Climate-Waste Prevention Connection?

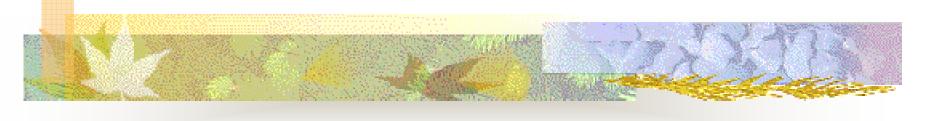
June 4, 2009

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Waste Reduction and Recycling: A Key Element of a Community Greenhouse Gas Reduction Action Plan



Maplewood, New Jersey as an example

Bob McCoy

Maplewood Environmental Advisory Committee

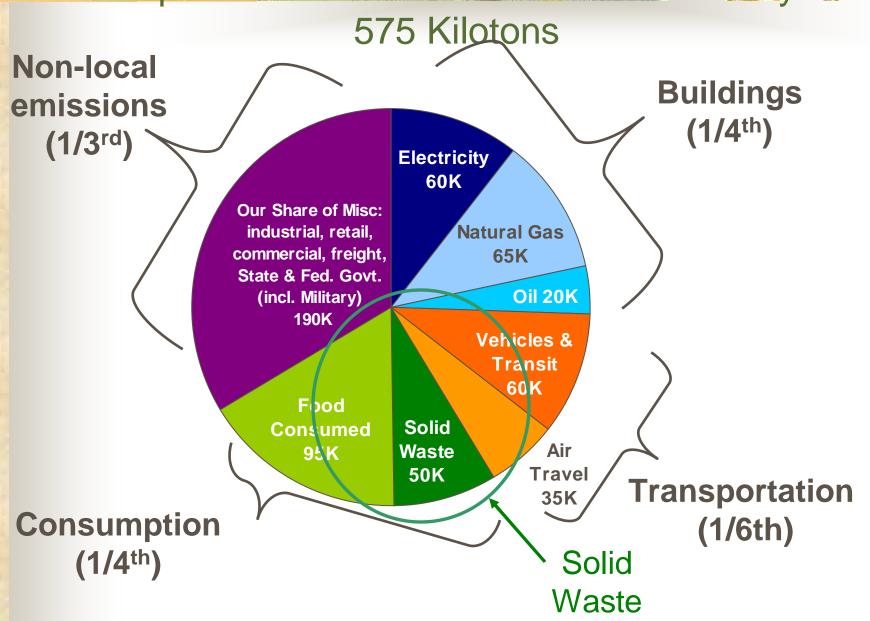
Overview of the Maplewood Climate Initiative Process

- Supportive community and elected government recognized need to address climate change locally—2006
- Recognized that there were significant, locally controllable decisions
- Set the reduction goal first—based on amount needed to avoid climate change spiral
- Local government (including schools) is only a small contributor—most of the action is with individual households
- In addition to direct energy use, household consumption and disposal decisions are a major factor

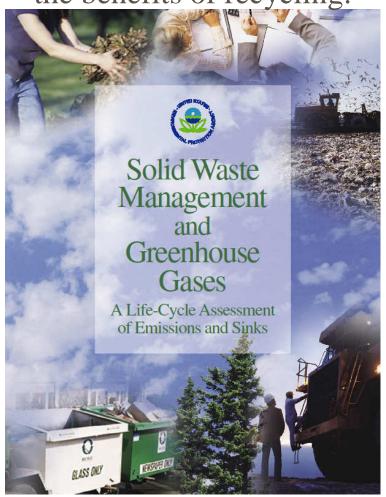
Maplewood Climate Initiative Process: Inventory of Greenhouse Gas Sources

- Inventory of locally-caused greenhouse gas emissions
- Goal of inventory is to quantify magnitudes of reduction opportunities—use estimates where precise data is unavailable
- Started with average American emission level of 24 tons of CO₂ equivalent—account for specific portions where information is available
- Action Plan to address each of the major sources of emissions

Maplewood's Annual Emissions Inventory



Detailed source for the impact of solid waste and the benefits of recycling:



http://epa.gov/climatechange/wycd/waste/SWMGHGreport.html

Calculation of Greenhouse Gases from Solid Waste

- 1. Estimate the greenhouse gas content of the materials that make up Maplewood's solid waste

 Tons of MSW x CO₂ equivalent per ton
- 2. Determine Maplewood's recycling tonnage for the materials being recycled
- 3. Deduct the CO₂ equivalent for amount that is recycled
- Opportunities to reduce the greenhouse gas impact by both reducing disposals and increasing the recycling rate

Maplewood's Plan to reach 20% reduction

	Source of Emissions	K Tons CO2	Source Reduction Goal	Reduction
	Electricity	60	Reduce fossil-sourced electricity consumption in homes and buildings 35%	21
	Vehicles / Mass Transit	60	Improve overall avg fuel economy by 8 mpg	14
	Solid Waste	50	Double recycling participation / collections	13
-	Natural Gas	65	Improve average home and building efficiency (space and water heating) 15%	10
	Food Consumed	95	Reduce impact of food consumption by 10% through switching to plant-based/local diet	10
	Air travel	35	Offset 20% of air travel through carbon offsets	7
ľ	Oil	20	Switch 50% of oil homes to gas	4
	Sub-total: Locally Addressable Emissions 385			79 (-20%)
	Our Share of Federal, State, Military, Commercial, Retail, Freight, Construction, etc Emissions	190	Support state and federal legislative efforts to reduce emissions 20%	38
	Total	585		114 (-20%)

Goal is to reduce Maplewood's emissions 20% by 2015

Measures taken to reduce the climate impact of Maplewood's consumption:

- 2007 Reduced residents' recycling sorting categories from 8 to 3 (Commingled cans, paper and cardboard, and newsprint)
- Added #1 and #2 plastic and additional grades of cardboard to curbside pickup. Also, almost monthly electronics recycling with another town
- Single garbage can option (cheaper than two)
- 2009 Changed to curbside single stream
- Community education on links between consumption/disposal decisions and GHG emissions

Things you can do to reduce your greenhouse gas emissions: Consumption

Action	Cost (Approximate)	Estimated Annual Greenhouse Gases Reduced (Depends on circumstances)	
Switch to a less meat intensive diet: eating red meat or fish rarely rather than daily	Likely save money. Healthier too.	5500 lbs per person	
Help double Maplewood's recycling rate	Adds revenue for the Township	3300 lbs per household	
Reduce from 90 gallons per week of garbage to 60	Save \$80 per year with the one can per pickup option	3000 lbs	
Reduce junk mail 1.5 lbs per week	\$15/year if using commercial service	500 lbs even if fully recycled	

[Compared to much less than 100 lbs by just avoiding plastic shopping bags]

Progress toward reduction goal:

- Type 10 MSW reduced ~ 1200 tons (~10%)
- Residential recycling increased ~ 370 tons (~16%)
- Total disposals decreased ~830 tons or 3.3 kilotons of CO₂ equivalent
- Recycling recovered about 0.8 kilotons of CO₂ equivalent

Steps to further reduce solid waste impact:

- Continue to simplify residential recycling
- Make recycling easier for small businesses
- Stricter enforcement of recycling laws
- Disposal pricing to reward those who throw away less
- Facilitate composting of food waste

Visit www.MaplewoodIsGreen.org (under construction)

Email: MaplewoodClimate at verizon.net

Hilltown Resource Management Cooperative

Eric Weiss Administrator, HRMC 6/04/09

The HRMC is made up of the following rural Communities in Hampshire and Franklin Counties in Western Massachusetts

- Ashfield
- Chesterfield
- Cummington
- Goshen
- Huntington
- Middlefield
- Plainfield
- Westhampton
- Williamsburg
- Worthington
- We are located approximately 130 miles west of Boston on the eastern side of the Berkshire Mountains

Background Information

- The HRMC was formed by its member Communities in 1989. When the waste disposal crisis created an important need for rural, regional solid waste and recycling plan
- Each Community pays an annual assessment to the HRMC based on tonnage and population.
- The HRMC, since 1989, has been a very successful venture by and for the Communities it represents
- HRMC monitors all solid waste and recycling programs
- In 2006 the HRMC, as part of a re-evaluation of its governing by-laws added addressing rural Hilltown sustainability issues to its core mission.
- HRMC is currently pursuing both recycling and new sustainability /green energy efforts for member Towns

Town	Population	Assessment
Ashfield	1,800	\$6,452.07
Chesterfield	1,201	\$3,674.85
Cummington	978	\$3,587.90
Goshen	921	\$2,796.75
Huntington	2,174	\$7,375.00
Middlefield	542	\$1,872.00
Plainfield	589	\$1,901.85
Westhampton	1,468	\$4,978.10
Williamsburg	2,427	\$8,657.75
Worthington	1,270	\$4,419.80
Totals	13,370	\$45,716.70
Total Annual Operating Budget		\$367,709.14

Annual Recycling & Disposal Information (Tons)

Town	Recycling	MSW	Recy (%)
Ashfld	352.97	417.4	46
Chstrfld	141.04	180.97	44
Cmmngtn	137.90	248.92	36
Gshn	123.94	168.74	42
Hntngtn	275.37	490.99	36
Mddlfld	71.90	148.93	33
Plnfld	88.84	115.77	43
Wsthmptn	233.26	345.22	39
Wllmsbrg	429.71	576.57	43
Wrthngtn	210.31	271.79	44

HRMC Program and Efforts

- The HRMC directly manages the following programs for its member programs:
- MRF recycling program (all household recyclables)
- Electronics recycling program
- Fluorescent Light Recycling Program
- Paint Recycling Program
- Annual regional HHW collection
- Technical Assistance and required annual submissions to Mass DEP
- Attend State & local meetings for member Towns

HRMC Programs and Efforts Cont.

- Provide outreach and education Information
- Acquire grants to promote HRMC mission
- Monitor solid waste and recycling tonnages
- Work directly with local Boards on important issues
- Currently assisting Towns in determining Green House Gas (GHG) savings from their existing recycling programs and efforts.
- Promote new sustainability efforts in the Hilltown region

Regional Approach

- HRMC Towns share a beautiful rural region
- Preservation of quality of life extremely important
- Regional approach for rural towns saves costs and allows Administrator to accomplish task volunteers are unable to pursue
- Common regional desire to protect the environment and pursue sustainability efforts which make practical sense like recycling & green energy projects such as wind power or solar.

Sustainability Goals

- Recycling is an important part of the overall sustainability equation
- HRMC Administrator is the first ever Chairman of the Pioneer Valley Sustainability Network (PVSN)
- Recycling helps reduce "ecological footprint "of the Community and the HRMC region by reducing member Towns greenhouse gas emissions

Sustainability Goals Cont,

- HRMC initial sustainability goals are to assess potential municipal wind and solar sites in region
- Potential sites to be examined will be municipally owned sites in HRMC member Towns such as schools, town buildings, other pieces of Town land etc.
- First specific site to be evaluated for wind power potential is the New Hingham Elementary School in Chesterfield